

# Intro to Java Week 5 Coding Assignment

**Points possible:** 70

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete.	25

**Instructions:** In Eclipse, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed. Take screenshots of the code and of the running program (make sure to get screenshots of all required functionality) and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document, with your Java project code, to the repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

## Coding Steps:

1. Create an interface named `Logger`.
2. Add two void methods to the `Logger` interface, each should take a `String` as an argument
  - a. `Log`
  - b. `Error`
3. Create two classes that implement the `Logger` interface
  - a. `AsteriskLogger`
  - b. `SpacedLogger`
4. The `log` method on the `AsteriskLogger` should print out the `String` it receives between 3 asterisks on either side of the `String` (e.g. if the `String` passed in is "Hello", then it should print `***Hello***` to the console.
5. The `error` method on the `AsteriskLogger` should print the `String` it receives inside a box of asterisks, with the `String` preceded by the word "ERROR:". For example, if "Hello" is the argument, the following should be printed:

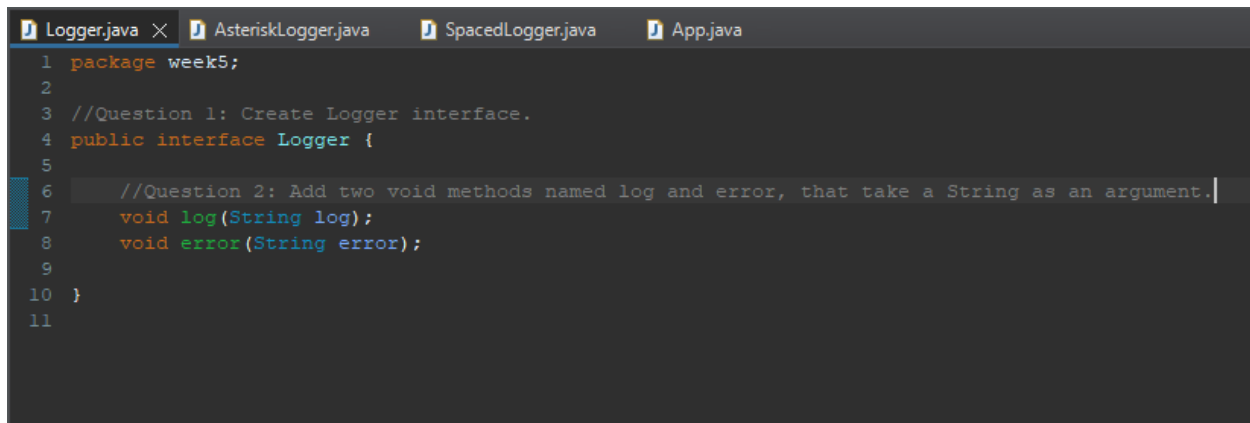
\*\*\*\*\*

\*\*\*Error: Hello\*\*\*

\*\*\*\*\*

6. The SpacedLogger should add spaces between each character of the String argument passed into its methods.
7. If the log method received “Hello” as an argument, it should print H e l l o
8. The error method should do the same, but with “ERROR:” preceding the spaced out input (i.e. ERROR: H e l l o)
9. Create a class named App that has a main method.
10. In this class instantiate an instance of each of your logger classes that implement the Logger interface.
11. Test both methods on both instances, passing in Strings of your choice.

### Screenshots of Code:

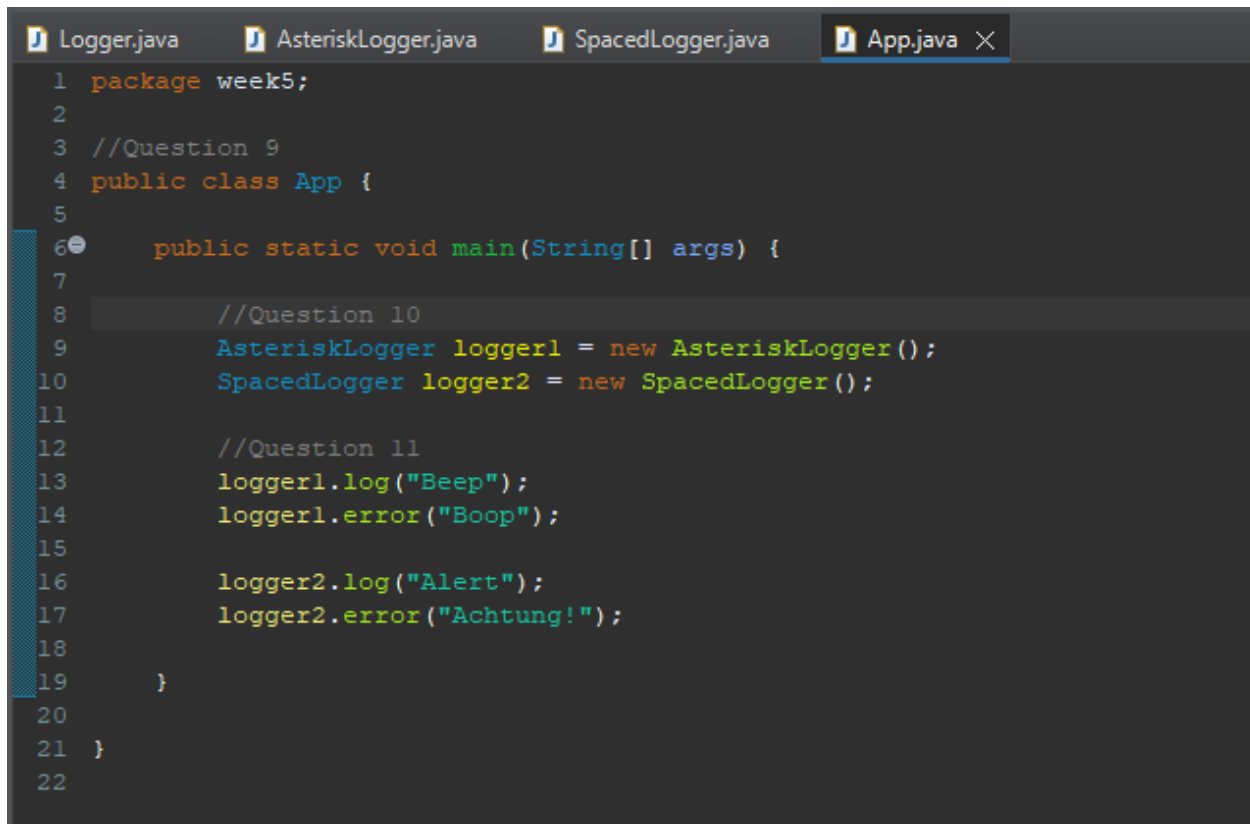


```
Logger.java x AsteriskLogger.java SpacedLogger.java App.java
1 package week5;
2
3 //Question 1: Create Logger interface.
4 public interface Logger {
5
6     //Question 2: Add two void methods named log and error, that take a String as an argument.
7     void log(String log);
8     void error(String error);
9
10 }
11
```

Logger.java AsteriskLogger.java X SpacedLogger.java App.java

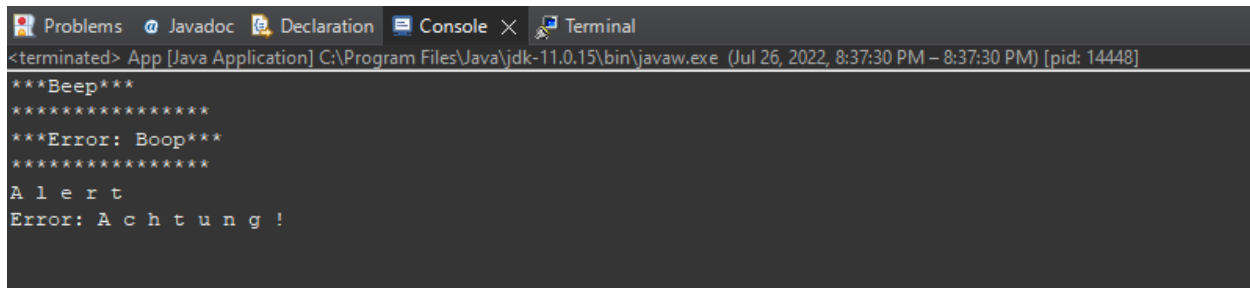
```
1 package week5;
2
3 //Question 3a: Create AsteriskLogger class that implements Logger.
4 public class AsteriskLogger implements Logger {
5
6     //Question 4
7     @Override
8     public void log(String log) {
9         System.out.println("****" + log + "****");
10    }
11
12    //Question 5
13    @Override
14    public void error(String error) {
15        System.out.println("*****");
16        System.out.println("***Error: " + error + "****");
17        System.out.println("*****");
18    }
19
20
21
22
23
24 }
25
```

```
Logger.java  AsteriskLogger.java  SpacedLogger.java ×  App.java
1 package week5;
2
3 //Question 3b: Create SpacedLogger class that implements Logger.
4 public class SpacedLogger implements Logger {
5
6     //Question 6 + 7
7     @Override
8     public void log(String log) {
9         StringBuilder builder = new StringBuilder();
10        for (int i = 0; i < log.length(); i++) {
11            builder.append(log.charAt(i) + " ");
12        }
13        System.out.println(builder);
14
15    }
16
17    //Question 8
18    @Override
19    public void error(String error) {
20        StringBuilder builder2 = new StringBuilder();
21        for (int i = 0; i < error.length(); i++) {
22            builder2.append(error.charAt(i) + " ");
23        }
24        System.out.println("Error: " + builder2);
25    }
26
27
28
29
30 }
31
```



```
1 package week5;
2
3 //Question 9
4 public class App {
5
6     public static void main(String[] args) {
7
8         //Question 10
9         AsteriskLogger logger1 = new AsteriskLogger();
10        SpacedLogger logger2 = new SpacedLogger();
11
12        //Question 11
13        logger1.log("Beep");
14        logger1.error("Boop");
15
16        logger2.log("Alert");
17        logger2.error("Achtung!");
18
19    }
20
21 }
22
```

### Screenshots of Running Application:



```
<terminated> App [Java Application] C:\Program Files\Java\jdk-11.0.15\bin\javaw.exe (Jul 26, 2022, 8:37:30 PM – 8:37:30 PM) [pid: 14448]
***Beep***
*****
***Error: Boop***
*****
A l e r t
Error: A c h t u n g !
```

### URL to GitHub Repository:

<https://github.com/gyarbrough/BESD-week5-assignment>